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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,329	06/30/2003	Sargur Srihari	RESP:111US	3822
24041 7590 05/08/2008 SIMPSON & SIMPSON, PLLC 5555 MAIN STREET WILLIAMSVILLE, NY 14221-5406				
EXAMINER DESIRE, GREGORY M				
ART UNIT		PAPER NUMBER		
2624				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/611,329

**Applicant(s)**

SRIHARI ET AL.

**Examiner**

Gregory M. Desire

**Art Unit**

2624

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-4, 6-17 and 22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-17 is/are allowed.
- 6) ☒ Claim(s) 2-4, 6-9 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/30/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

### DETAILED ACTION

1. The indicated allowability of claims 2-4, 6-17 and 22 are withdrawn in view of the newly discovered reference(s) to Tumey et al ((2002/0035542), Kuo et al and Kondo et al Rejections based on the newly cited reference(s) follow. The finality of the office action is withdrawn.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 2-4, 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Tumey et al (2002/0035542).

Regarding claim 2 Tumey discloses

Comparing (fig. 2, block 236) a first vector (fig. 2, block 234) from a first biometric sample (223 and 151, fingerprint data) with a second vector (235) from a second biometric sample (224 and 152), wherein said first (234) and second vectors 235) have at least one biometric feature (minutae are fingerprint features (page 4, lines 1-2). Determining by means of said general purpose computer whether said first and second biometric sample are from the same source (paragraph 0029 lines 1-4, same source is same finger or person), wherein the

first vector and the second vector represent points in multidimensional  
(paragraph 0027 lines 26-30)

Regarding claim 3 Tumey discloses,

Wherein clustering of the first vector with the second vector indicates that the first biometric sample and the second biometric sample are from the same source (note paragraph 27-37, examiner interprets the alignment of vectors as clustering, verifying a person).

Regarding claim 4 Tumey discloses

Comparing (fig. 2, block 236) a first vector (fig. 2, block 234) from a first biometric sample (223 and 151, fingerprint data) with a second vector (235) from a second biometric sample (224 and 152), wherein said first (234) and second vectors (235) have at least one biometric feature (minutae are fingerprint features (page 4, lines 1-2). Determining by means of said general purpose computer whether said first and second biometric sample are from the same source (paragraph 0029 lines 1-4, same source is same finger or person), wherein differences in clustering distance between the first vector and the second vector indicate that the first biometric sample and the second biometric sample are from different sources (paragraph 0027 lines 26-30).

Regarding claim 6 Tumey discloses,

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Wherein said first and second biometric samples are selected from the group consisting of handwriting samples, voice samples, face geometry samples, fingerprint samples, hand geometry samples, iris samples, retinal samples, vein samples and voice samples (note fig. 2, 151 and 152 and page 4 lines 1-3 biometric samples are fingerprint samples).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tumey et al in view of Kuo et al (6,873,715)

Tumey discloses all the elements of claim 7 and 22 except for biometric samples are not handwriting samples. Kuo discloses biometric information as handwriting samples for signature verification (note col. 13 lines 24-30). A common usage of fingerprint samples is to verify or authenticate users. The art further shows that one of ordinary skill in financial transaction authentication system art at the time of the invention would have been familiar with using handwriting samples interchangeably with or in lieu of fingerprint samples to verify/authenticate a person/user. It is also clear from an examination of the prior

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art that those of ordinary skill in financial transaction authentication system art at the time of the invention would have been familiar with using handwriting samples to obtain authenticate information to identify users. Since each individual element and its function, as described in claims 7 and 22 are shown in the prior art, albeit shown in separate references, the difference between the claimed subject matter and the that of the prior art rests not on any individual element or function but in the very combination itself. That is, in the substitution of Kuo's handwriting sample for Tumey's fingerprint samples.

6. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tumey in view of Kondo et al (2002/0152034).

Regarding claim 8,

Tumey does not clearly disclose the measuring distance between binary vectors. Kondo discloses measuring distance between binary vectors (note paragraph 0050, last sentence). Tumey and Kondo are combinable because they are from the same field of endeavor. Therefore, it would have been obvious to one of ordinary skill in the art to disclose the measuring distance between binary vectors. The suggestion/motivation for doing so would have been calculating authentication distance the reliability of a comparison (note paragraph 0050 lines 1-17).

Regarding claim 9,

Tumey does not clearly disclose the identification model and a verification model. Kondo discloses identification model and verification model measuring distance between binary vectors (note fig. 1). Tumey and Kondo are combinable because they are from the same field of endeavor. Therefore, it would have been obvious to one of ordinary skill in the art to identify and verify models. The suggestion/motivation for doing so would have been calculating authentication distance the reliability of a comparison (note paragraph 0050 lines 1-17).

***Allowable Subject Matter***

7. Claims 10-17 are allowed.
8. The following is an examiner's statement of reasons for allowance for independent claim10.

Regarding claim10, the distinguishing features are that at least one cluster is a composite model for measuring the distance between a first binary feature vector and a second binary feature vector and wherein the accuracy of said model is measured by calculations involving features selected from the group consisting of micro-features, macro-features and a combination of micro and macro-features. These features in combination with other features are not taught in the prior art. Claims 11-17 depend on claim 10. Therefore are also allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should

preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory M. Desire whose telephone number is (571) 272-7449. The examiner can normally be reached on M-F (6:30-3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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G.D.

May 5, 2008

/Gregory M. Desire/  
Acting Examiner of Art Unit 2600